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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,638	12/08/2003	Kaoru Takeishi	5576-156	3023

20792 7590 06/05/2006

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EXAMINER

NGUYEN, CAM N

ART UNIT PAPER NUMBER

1754

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/730,638	Applicant(s) TAKEISHI ET AL.	
	Examiner Cam N. Nguyen	Art Unit 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/20/06 (an amendment/response).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicants' amendment and remarks, filed March 20, 2006, has been made of record and entered. Claims 1 & 3 have been amended. Claim 7 has been canceled.

Claims 1-6 & 8 are currently pending and under consideration.

Claim Rejections - 35 USC § 102(e)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Niu et al., "hereinafter Niu", (Pre-Grant Pub. No. US 2003/0180215 A1).

Niu discloses a supported catalyst comprising a plurality of particles, each said particle comprising a catalytic component and a porous refractory support (see page 13, claim 35). Suitable catalytic components including Cu, Fe, and Zn (see page 14, claim 38). Suitable porous refractory support materials including alumina (see page 14, claim 40). The catalyst has an average pore diameter of about 10-100 nm (or 100-1,000 Å) (see page 14, claim 47).

With respect to the claimed pore size distribution limitation, it is considered the claim is anticipated by the teaching of the reference because the claimed pore diameter falls within the disclosed pore diameter.

No difference is seen between the claimed catalyst and the catalyst disclosed by Niu. Thus, the claim is anticipated by the reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 5, & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niu et al., "hereinafter Niu", (Pre-Grant Pub. No. US 2003/0180215 A1).

Niu discloses a supported catalyst as described above, except for the claimed metal concentrations.

However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have predetermined optimum amounts of such metal concentrations in Niu in order to achieve an effective catalyst, because of *In re Boesch*.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niu et al., "hereinafter Niu", (Pre-Grant Pub. No. US 2003/0180215 A1), as applied to claim 1

above, and further in view of Shikada et al., "hereinafter Shikada", (US Pat. 6,361,757 B1).

Niu discloses a supported catalyst as described above, except for Mn and its concentration.

However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have incorporated by adding manganese or Mn and at the concentration as suggested by Shikada to the catalyst of Niu in order to achieve an effective catalyst in Niu because Shikada teaches to employ a sufficient and effective amount of a third metal component, i.e., Mn, at the concentration of 1-70 wt.% or less, in general, about 1-30 wt.% (see Shikada at col. 3, ln 23-31).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cai et al., "hereinafter Cai", (US Pat. 6,627,572 B1).

Cai discloses a process of preparing a catalyst by precipitating the copper and zinc components separately from the aluminum component in aqueous solution to produce a catalyst precursor mixture (see col. 5, ln 12-14). Some acids can also be used in the process (see col. 5, ln 33-40). See also col. 5, ln 45-49. After precipitating, the resulting precipitate is then dried and calcined and formed into appropriate shapes (see col. 6, ln 10-21).

Cai does not disclose the "reducing" step. It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have incorporated the reducing step into the process of Cai in order to obtain a reduced

catalyst because it is known and conventional to convert metal oxide catalyst materials into metallic form catalyst materials by reducing.

Response to Applicants' Arguments

8. Applicants' response, filed on March 20, 2006, has been fully considered, but not deemed persuasive in view of the new ground of rejection(s) above.

Further, applicants' urging regarding the claimed "reducing step" of claim 8 is noted. It is considered the rejection is still proper and the examiner maintained the same reason concluded that it is known and conventional to convert metal oxide catalyst materials into metallic form catalyst materials by reducing.

Citations

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared attached.

Conclusion

10. Claims 1-6 & 8 are pending. Claims 1-6 & 8 are rejected. No claims are allowed.

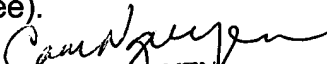
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone

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number is 571-272-1357. The examiner can normally be reached on M, W, R, & F, 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CAM N. NGUYEN
PRIMARY EXAMINER

Nguyen/cnn *CNN*
May 30, 2006

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